

MEDIA CONCEPT PLAN

PECOS NATIONAL HISTORICAL PARK GLORIETA BATTLEFIELD UNIT NEW MEXICO

DECEMBER 2004



NATIONAL PARK SERVICE

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INTRODUCTION

During the American Civil War, part of the Confederate strategy for the West was to capture the New Mexico Territory, move north and claim the Colorado Territory, and ultimately expand the Confederacy to California. Claiming this vast area would capture rich gold and silver resources and seaports for the South.

In December 1861, General Henry Hopkins Sibley was placed in command of the Confederate Army of New Mexico. Using the 4th, 5th, and 7th Texas Mounted Riflemen, Sibley quickly captured the southern half of the New Mexico Territory, and by early 1862 had moved north on the Camino Real toward Albuquerque.

Sibley's plan was to continue moving north, following the Santa Fe Trail, capture Fort Union in northern New Mexico, and proceed on to Colorado.

Learning of the Confederate invasion, Union Colonel Edward Canby, Commander of the Department of New Mexico, began assembling troops. The First Colorado Volunteers, an infantry brigade of 950 miners, were quickly organized under the command of Colonel John P. Slough. They marched 400 miles from Denver to Fort Union in just 13 days.

Joined by other Union troops, Slough led his force west on the Santa Fe Trail to engage the Confederates. By March 25, 1862 Union advance troops, under the command of Major John M. Chivington, had set up camp (named Camp Lewis) at Kozlowski's Santa Fe Trail Stage Stop east of Glorieta Pass. Meanwhile, the 5th Texas Regiment, led by Major Charles Pyron, had set up camp at Johnson's Ranch, another Santa Fe Trail Stage Stop in Apache Canyon on the west side of Glorieta Pass.

On the morning of March 26, a scouting party led by Chivington discovered and captured a Confederate scouting party in Glorieta Pass, and then encountered the main Confederate force in Apache Canyon. A two-hour skirmish ensued. Although Chivington captured 70 Confederate soldiers and left 43 Confederate wounded and 32 dead, he fell back to Pigeon's Ranch. By evening, a truce was called to allow both sides to tend to the wounded.

The next day, March 27, was a day of rest for the soldiers and a time for the leaders to assess their options based on their locations.

On March 28, when Colonel Slough learned that the Confederates had been reinforced, he decided to divide his forces. Slough's 900 soldiers would proceed west along the Santa Fe Trail and block Glorieta Pass, while Chivington and Lieutenant Colonel Manuel Chavez of the New Mexico Volunteers would take 450 men over the mountains to attack the Confederate right flank or rear. On the other side, 900 Confederates were preparing to move east on the Santa Fe Trail, but they had chosen to leave their supply train at Johnson's Ranch.

Fighting began near Pigeon's Ranch on the morning of March 28. Union soldiers formed an initial defense line along a hill currently known as Windmill Hill (located one third of a mile northwest of Pigeon's Ranch), but an hour later they fell back to the ranch buildings.

The Confederates faced Union artillery from Pigeon's Ranch and what is now known as Artillery Hill (located one tenth of a mile southwest of Pigeon's Ranch) for three hours, but eventually outflanked the Union right. From site currently known as Sharpshooter's Ridge (located directly north of Pigeon's Ranch) they could then fire down on the Union troops, forcing Slough to retreat and set up a new battle line east of the ranch. The Texans charged this new defense line shortly before sunset. Slough ordered his men back to Camp Lewis, leaving the Confederates in possession of the field and believing they had won a victory. Both sides were exhausted after six hours of fighting, each having sustained more than 30 killed and 80 wounded or missing.

While the battle raged at Pigeon's Ranch, the Union force led by Chivington and Lieutenant Colonel Manuel Chavez had marched 16 miles through the mountains and had discovered the Confederate supply train at Johnson's Ranch. They had driven off the few guards, killed or ran off 30 horses and mules, spiked an artillery piece, taken 17 prisoners, and burned 80 wagons containing, ammunition, food, clothing, and forage. This action turned out to be the pivotal event in the battle and ultimately in the campaign for control of New Mexico and the West.

The Confederate command quickly realized that without vital supplies they could no longer continue their march on Fort Union, and commenced a retreat to Santa Fe. Two weeks later, the Confederates left Santa Fe, relinquished control of Albuquerque, and proceeded back to Texas.

There were no further Confederate attempts to invade the western territories. The Battle of Glorieta Pass had decided conclusively that the southwest would remain with the Union.

BACKGROUND

On November 8, 1990, Congress expanded Pecos National Historical Park to include the 682-acre Glorieta unit. This unit was added to:

"Preserve and interpret the Battle of Glorieta Pass and to enhance visitor understanding of the Civil War and the Far West" (PL 101-536, November 8, 1990: 104 Stat. 2368).

The 1997 General Management Plan (GMP) for Pecos National Historical Park calls for restoring Glorieta National Battlefield to its Civil War appearance and making it accessible to the public. A key action discussed in the GMP is the relocation of New Mexico Road 50 (NM50) away from the battlefield. Other actions include developing a visitor contact station, creating parking areas, establishing trails and viewpoints, and restoring cultural landscape features to the Civil War period.

Glorieta is among the nation's 50 Priority I Civil War Battlefields as identified by the Civil War Sites Advisory Commission. Priority I battlefields are those where increased preservation efforts are most urgently needed. Glorieta is the only Civil War site in the Southwest on this priority list. The battlefield also is listed in the National Register of Historic Places, the New Mexico State Register of Cultural Properties, and it is a National Historic Landmark.

The authorized boundary for the Glorieta Unit includes two separate areas: The Pigeon's Ranch area on the east side of Glorieta Pass and the Cañoncito area on the west side of the pass. The NPS currently owns about 90-95% of the Pigeon's Ranch unit, but only about 25% of the Cañoncito unit. Ownership of the Cañoncito unit consists mainly of a few long narrow parcels that make it difficult to offer much in the way of interpretation or visitor access.

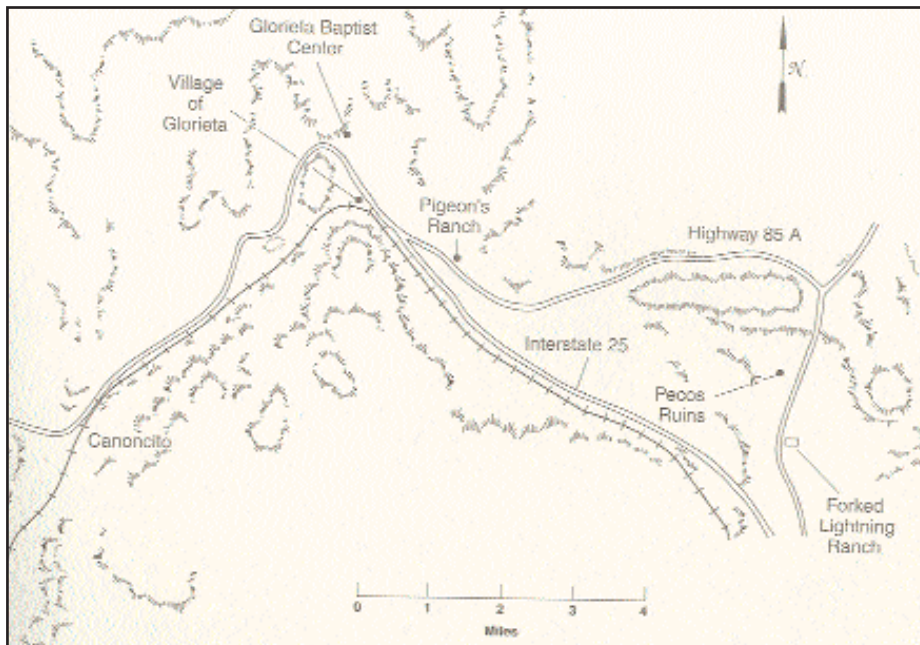
Heavy traffic on NM50 is the primary impact to the visual and emotional integrity of the historic scene and to visitor safety at the Pigeon's Ranch unit. In addition, the only surviving Pigeon's Ranch building (present during the battle) lies just three feet from the highway. Vibration and the exhaust of passing traffic continue to weaken and damage the structure, and a single motor vehicle accident could have devastating consequences.

Currently, visitors can access the Pigeons Ranch site only on guided NPS tours. This is done to ensure safety in parking, walking next to the road, and crossing the highway. Tours also offer the only means of on-site interpretation of the battle. Limited information and interpretation of the battle is provided at the park visitor center.

In January 2001, the National Parks Conservation Association released a study titled *Glorieta National Battlefield: Its Economic Benefits for San Miguel and Santa Fe Counties*. In addition to identifying the importance of protecting and interpreting battlefield resources, the study made visitation projections for the site and economic, and employment benefit projections for the two counties.

A highway study is currently underway to examine all the issues surrounding the location of NM50. Implementation of any proposals from this study will occur in the long term (probably in the 5-10+ year range). In addition to long-term implementation actions, the park wants to develop short-term recommendations that would allow safe public access and interpretation of the battlefield.

This planning project presents some specific short- and long-term media concept recommendations for visitor orientation and interpretation of the Glorieta unit. The recommendations are based on the park's purpose, significance, primary interpretive themes, and visitor experience goals.



Area Map (by David Cunningham)

PURPOSE AND SIGNIFICANCE

Based on the Glorieta authorizing legislation the GMP for Pecos National Historical Park states that:

The purpose of the Glorieta unit is to preserve and interpret areas where the Civil War Battle of Glorieta Pass took place.

The Battle of Glorieta Pass is significant because it effectively ended the Confederate attempt to conquer the West. The Pigeon's Ranch and Cañoncito areas contain natural landmarks and historic resources associated with the battle.



Pigeon's Ranch and New Mexico Route 50

INTERPRETIVE THEMES

Interpretive themes are those ideas/concepts that are critical for achieving visitor understanding and appreciation of the significance of Pecos National Historical Park. Primary themes do not include everything that may be interpreted, but they provide the foundation from which program and media level themes and objectives can be developed. All interpretive efforts (through both personal and non-personal services) should relate to one or more of the primary themes. Effective interpretation results when visitors are able to connect concepts with resources and derive something meaningful from the experience.

The Draft Comprehensive Interpretive Plan (CIP) for Pecos National Historical Park identifies seven primary interpretive themes. Of these, one theme specifically relates to the Battle of Glorieta Pass. In developing this document, this theme was modified slightly to read:

As a result of the Battle of Glorieta Pass, the Union presence in the southwest was solidified, changing the social, economic, scientific, and political dynamics of the region; the future of the people of the New Mexico Territory was forever altered.

Interpretation of this theme will help visitors better understand and appreciate:

- the national and regional context leading up to the battle, including why the Civil War was being fought
- why the battle was fought here
- the amount of training the troops received prior to the battle
- the physical exertion required and the price paid for the troops to get here
- the significance and use of the stations along the Santa Fe Trail
- that the area has been a corridor for many cultures for centuries—including the route that brought the Union and Confederate armies together
- the order of battle and orientation in space and time
- the tactics and technologies used in the battle—especially the flanking movement that captured the Confederate supply train
- the mindset of the combatants
- personal stories of those involved (soldiers, commanders, civilians, and their descendants); what became of them and that many knew each other
- how long it took for news of the battle to get out

- the effects of the battle on local residents (i.e. Pigeons)
- attitudes of area residents and of neighboring Mexico toward the Civil War
- that most of the Colorado miners engaged in the battle remained and changed the social dynamics of the area
- the nature and extent of the casualties, and the change in the size of the armies before and after the battle
- the fate of the casualties, including the nature of their medical treatment
- changes in medicine/surgery throughout the Civil War
- that political fallout of the battle delayed statehood for New Mexico
- past, current, and future research on the battle
- the short and long-term results of the battle and why some called it the "Gettysburg of the West"
- how the geography and topography shaped the battle

Three of the other primary themes have some relevance to the Battle of Glorieta Pass. They are:

The natural features of the landscape, including the Pecos River and its tributaries, dictated the survival of past and present cultures and continue to influence where and how people live.

The overlay of numerous significant trade routes from pre-contact through Santa Fe Trail, railroad, and interstate highway systems through the Pecos Valley illuminates the importance of this physical location.

The multi-cultural crossroads of what is now New Mexico has been challenged many times throughout history, bringing diverse communities together in both conflict and peace.

VISITOR EXPERIENCE GOALS

In addition to learning about the related primary interpretive themes above, general visitors and educational groups to the Glorieta Battlefield will have opportunities to:

- receive accurate and up-to-date information
- receive an orientation experience to the sites
- learn about the events and resources before or even without coming to the park
- plan their visit based on various levels of interest, abilities, and time constraints
- easily and safely access and tour the sites
- know when they have arrived at the sites
- visit the sites through guided interpretive programs
- visualize the events of the battle
- visit the sites in different ways (i.e. walking, driving, and via guided and self-guiding tours)
- engage in a variety of on- and off-site activities
- come in direct contact with the resources/landscapes of the battlefield
- know that this is only one aspect of the larger story of Pecos National Historical Park
- learn about the battle through a variety of interpretive media on-site and at the visitor center
- purchase items to enhance their knowledge of the battle
- experience the "hallowed ground" essence of the battlefield
- experience the sites as close as possible to the way they appeared at the time of the battle
- integrate site visits with curriculum-based education programs
- learn more about the battle, the Civil War in the west, and other theme-related sites and programs

RECOMMENDATIONS

The following recommendations address media concepts for interpreting the Glorieta Battlefield areas of Pecos National Historical Park. Each recommendation is designed to further define, support, and/or communicate the park's purpose, resource significance, interpretive themes, and visitor experience goals. Implementation of these recommendations will help ensure that visitors are well prepared and informed, and that meaningful experiences and connections will be formed with the tangible and intangible resources.

The discussion of media proposals identifies the purpose, special considerations, and sometimes suggests ideas about their presentation. It is important to remember that these are only suggestions, and should not limit the creativity that is essential during the media planning and design processes. On the other hand, the proposals are specific enough to provide guidance, identify outcomes, develop Class C cost estimates, and define the parameters in which these creative energies can flow. In addition to the following recommendations, the park staff and media program developers need to continually ensure that the primary interpretive themes and visitor experience goals are being addressed.

Since school children constitute an important segment of future visitors to the battlefield, special attention will be given to developing media and programs that attract and hold the interest of young people.

Long-Term

This document supports the overall recommendations in the GMP for the development and interpretation of the Glorieta Battlefield. This includes:

- examining options for future routing of NM Highway 50
- restoring the Santa Fe Trail (as a pedestrian route) through the Pigeon's Ranch site to its appearance at the time of the battle
- establishing a visitor contact center and parking for the battlefield
- restoring elements of the historic landscape to the battle period
- developing interpretive trails to key battlefield sites (i.e. Artillery Hill, Windmill Hill, Sharpshooter's Ridge, etc.).

Implementation all of the above actions are critical to creating optimal visitor experiences at the battlefield sites.

Proposals have been made to adaptively reuse the Sleepy Eye structure or build a new one to serve as a visitor contact facility for the Glorieta Battlefield units. Exhibits dedicated to interpretation of the Battle of Glorieta Pass should be included in planning for the facility, with at least 400 square feet of space for exhibits. Media that might be included in the visitor contact center, based on the above square footage and a modest budget, include:

- Exhibits will present the battle organized around the events of the three days through the use of graphic panels (some large format), artifacts in cases, and limited models and/or reproductions. The exhibit will present the reasons for the battle and its outcomes as they related to the Civil War.
- A topographic relief model (100 sq. ft. including circulation) will be dedicated to interpreting the battle. All features and events will be reproduced directly on the model such as roads, settlements, and camps, along with the sequence of the battle. The model would be a duplicate of the proposed Pecos Visitor Center model except that it will not include the fiber optic element of the main visitor center model (see Visitor Center section).

Any solutions to the highway relocation issue and to the development of a visitor contact center are seen as long-term actions. However, it is possible in the short-term, to increase visitor access to the site, provide basic interpretive media and services, and address many of the visitor experience goals.

Short-Term

The following recommendations are actions that can be taken prior to implementation of the long-term GMP proposals; however, these are actions that will integrate with the long-term recommendations and add to the quality of the overall visitor experience. These short-term actions are not meant to preclude implementation of the GMP recommendations. To do so would take away from achieving many of the desired visitor experience goals and lessen the optimal experience.

The following recommendations could be implemented in the short-term.

Pre-Arrival

The following actions will enable people to learn about the events and resources of the battlefield before, or even without coming to the park. The recommendations also will increase knowledge and appreciation

of the battle and its resources, and may result in increased support and reduced vandalism. Specific actions include:

- Expand the park web site to include more about the Glorieta unit site.
- Increase the variety of free and sales publications about the battle, and offer these through mail/email requests and through on-site and web site publication sales.
- Add more information about Glorieta in future updates of the official park brochure.
- Update the Battle for Glorieta Pass site bulletin as new information becomes available, and consider including information on the status of site development.
- Include Glorieta information in all media packets.
- Periodically provide multi-media status reports on battlefield development, and suggest how people can help.
- Develop off-site interpretive and educational programs for area schools and groups.
- Develop Glorieta Battle conferences/seminars in partnership with area college or university. Video of proceedings can be used for staff training.
- Create an overall marketing strategy to promote the battlefield. This could include listings in local, regional, national, and international travel literature and involvement with nearby conference centers.
- Attend or set up meetings with area information providers and others involved in the region's tourism industry to share information, including promotion of Glorieta activities.

On-Arrival

Visitors would continue to be directed to the Pecos NHP visitor center as their first stop. Consideration should be given to adding the Glorieta Battlefield to the official park signs on I-25. This would help visitors, including repeat visitors who may not be aware of the addition of the battlefield, learn of the site's existence.

Highway signs identifying the Glorieta site also are recommended for placement at or near the battlefield boundary along NM50. These signs, displaying the site name along with the NPS arrowhead, would help with site/agency identification and they would be part of the site's overall marketing strategy.

Visitor Center

Most all arriving visitors will receive initial information about visiting the battlefield at the visitor center.

Exterior Exhibits

Very little undedicated space exists inside the visitor center for stand-alone battlefield orientation exhibits. Creating an outdoor area that will give visitors access to information about the Glorieta areas is a way to expose people to the Civil War story without impacting the interior exhibits. A possible approach would be a "kiosk" type exhibit that would address the basics of the battle and provide a map explaining the events of March 26-28, 1862. The design treatment of the kiosk should interpretively address the primary theme and significance of this area, and the Santa Fe Trail as a focal point that brought the opposing forces together.

Interior Exhibits

Since there is very little undedicated space inside the building, an isolated exhibit addressing the Glorieta Battle would be out of place. Integrating Glorieta Battle orientation exhibits into the existing exhibit holds some possibilities for creating continuity in the overall Pecos story without major renovation or change in the focus of the existing exhibition.

This could be accomplished by reworking the first section of the exhibit room to introduce several of the primary park themes that revolve around the importance of this location as a passage and meeting place for people and cultures through time.

Media that could address this theme are:

1. A topographic relief model would act as a general orientation exhibit for the park. This model will locate all units of the park and clearly show existing topography of the surrounding area, including rivers, roads, and towns. Fiber optic lighting embedded in the model (activated by the visitor) will show different aspects of the themes, such as ancient trade or exploration routes, locations of other nearby Indian habitations, the Pecos Pueblo and related areas, the Santa Fe Trail, and important locations of the Battle of Glorieta Pass. An associated read-

er rail around the map would integrate text and graphics to briefly outline the relevance of the sites and topography to the themes.

2. Closely associated with the topographic model would be exhibits that introduce visitors to the eras represented by the people and events that have come to this crossroad in time. Each era will be illustrated by an iconic object (artifact, reproduction, or model) and a graphic panel. One would be dedicated to the Battle of Glorieta Pass.

Pigeon's Ranch Battlefield

Continuing guided tours of the battle will be an important and very effective method of interpreting the Glorieta sites. The tours allow visitors to have personalized, in-depth, and direct interaction with the resources, which is almost always a markedly better visitor experience than just viewing things from a distance. As noted earlier, guided tours also are important for ensuring visitor safety near NM50.

However, guided tours of the battlefield are limited, and many current and projected visitors may not be able to participate. To provide for greater battlefield access and avoid the hazardous conditions along NM50, this plan recommends establishing an interpretive trail overlooking the site from the ridge near the southwest boundary.

From the visitor center, visitors would be directed along a portion of the Old Denver Highway (Route 66) which parallels current I-25. A parking lot would be established at or near the terminus of this road, and a loop trail developed to interpret the battlefield. An introductory/orientation wayside exhibit would be placed at the trailhead. In addition to providing an introduction and context for the battle, this wayside exhibit would orient people to the loop trail, its length, degree of difficulty, and what they can expect to experience along the route.

Key points along the proposed trail will include Artillery Hill and Windmill Hill. Both sites were important during the battle, and with proper vista clearing, both locations could provide views of the action below. Windmill Hill offers potential views of both Pigeon's Ranch and Glorieta Pass. Wayside exhibits at these locations are proposed (see below).

Proper vista clearing at key locations along the trail will be essential for visitors to gain an understanding of the battle. Visitors will need more than glimpses through the trees in order to comprehend the landscape and the actions that occurred there. The integration of vista clearing

with a historic landscape study can probably create excellent views but also help re-create elements of the historic scene.

An effort would be made to make at least a portion of the trail ADA accessible; however, the terrain will prohibit making the entire loop accessible. In addition, winter snows may make the trail inaccessible to all visitors.

Another potential short-term option for providing access to the site is to establish a temporary parking area on disturbed ground at the "western town" or at Sleepy Eye and develop a trail leading away from NM50 to the ranch and (with proper resource stabilization) Sharpshooter's Ridge.

Wayside Exhibits

When visitors are only permitted to access the battlefield on guided tours, wayside exhibits are not essential. The guide provides the interpretation which can be supplemented with photos, art, and other props. Wayside exhibits do become important when visitors are able to tour the sites on their own.

Wayside exhibits in and around the Glorieta Battlefield can assist visitors by:

- providing site-specific interpretation and/or orientation
- presenting an agency identity at the sites
- showing landscapes and events that can no longer be seen.

Four Glorieta Battlefield sites have been identified for upright trailhead style waysides. Each would provide the overall identity with the NPS and more direct association with Pecos NHP. These wayside exhibits also would provide orientation to each battlefield location and offer basic interpretive links to the overall action. These 2-panel exhibits will offer the minimum level of outdoor orientation/interpretation that should be provided.

Location	Wayside Type
• Kozlowski's Ranch	parkwide orientation upright wayside site orientation / trailhead upright wayside
• Pigeon's Ranch	parkwide orientation upright wayside site orientation / trailhead upright wayside

- Rim Trail Parking parkwide orientation upright wayside
site orientation / trailhead upright wayside
- Johnson's Ranch parkwide orientation upright wayside
site orientation / trailhead upright wayside

A number of battlefield sites were identified as having potential for site-specific interpretive wayside exhibits. The following list identifies the general sites and the possible topics and/or specific sites that could be interpreted. In some cases topics might be combined.

General Location	Topic/Specific Site
• Kozlowski's Ranch	Federal Approach March-400 miles in 13 days Federal Headquarters at Camp Lewis Kozlowski's Way Station on the Santa Fe Trail
• Pigeon's Ranch	Main Battle Action Tug of War (Hand-to hand fighting) Sharpshooter's Ridge Artillery Hill Flankers Deploy Action at Pigeon's Ranch
• Rim Trail	A See-saw Battle Over 20 Miles Sharpshooter's Ridge Artillery Hill Flankers Deploy Action at Pigeon's Ranch 12,000 Years of Traffic Arrowhead Pueblo Ruins
• Windmill Hill	Glorieta Pass Sharpshooters Ridge Artillery Hill Chivington's Flank March
• Johnson's Ranch	Vital Supply Trail Chivington's Flank March The Final Blow

Determination of the specific number and placement of all wayside exhibits will depend on several factors.

- A Wayside Exhibit Proposal and subsequent Wayside Exhibit Plan are needed to develop an overall wayside program and to develop specific content and design.
- Development of the proposed loop trail and parking lot.
- Development of pullouts along existing roads.
- Relocation of NM50 away from the battlefield (long-term)
- Development of a Glorieta visitor contact center (long-term)

No historic photographs of the Glorieta battle are known to exist, although there is some contemporary artwork depicting scenes of the action. It is important for visitors to be able to visualize scenes of the battle as it developed. Some of the most effective battlefield wayside exhibits are those that illustrate (through historic photos or artwork) actions that occurred in front of where the visitor is standing. The use of existing art and the need to create new art for interpreting the Glorieta Battle will be evaluated in developing the Wayside Exhibit Proposal. Meanwhile, it is important for the park to continue building a visual inventory of images related to the battle.

Designers today must take into account that map-reading skills in the US population are falling rapidly. Military sites have traditionally leaned heavily on maps to tell the stories of how battles unfold. Now testing reveals that fewer and fewer people get much benefit of the effort (and surprising expense) that goes into creating a map, particularly for a wayside. Solutions other than standard flat maps overloaded with complex multi-colored spaghetti lines work better for 21st-century audiences.

Examples of how electronic simulations might look if done for Glorieta can be seen on the World Wide Web at www.3DnWorld.com. Starting with USGS contour data, a contractor artist like those showcased at 3dnature.com can create mathematical algorithms that would insert accurate troop images of the Confederate and Union forces onto the present-day vistas seen around Pecos and the Pass or even Camp Lewis. These mathematical electronic files can be manipulated to be seen from any angle or elevation. They can easily simulate the correct type of trees and accurately space the trees for 1862.

Wayside exhibits developed for the Glorieta sites should be bilingual (English and Spanish). They also should follow the internationally accepted rules for Spanish published in the Chicago Manual of Style.

Any new art, audio, or electronic simulations of Glorieta battle actions and panoramic vistas should be created first with the need to be effective as a wayside in mind. But there is ample opportunity to include the products in future publications, curricula, websites, or other visual venues. The use rights to new media should be secured so that the NPS or other educational organizations will have no limitations on their future use.

Audio Messages

Audio message repeaters associated with wayside exhibits generally have had a poor track record. They are prone to malfunctions, vandalism, lightning strikes, and they can intrude on the experiences of other visitors. Newer means of providing audio have been created and are continuing to be developed.

Because Glorieta Pass lies so close to metropolitan Santa Fe and the interstate highway, there is a possibility to use cell phones and existing voicemail technology to deliver audio messages (including appropriate sound effects) at the various wayside exhibit sites around the battlefield - in either English or in Spanish. This is a new media concept that -to date-has been attempted in few NPS areas.

Audio description dial up options also could be provided to not only narrate the text of the wayside and describe the graphics, but also to describe the third dimension of a wayside - the surrounding view of the site that gave rise to the exhibit in the first place.

Using cell phones to receive NPS interpretive messages would place less of a burden on park staffs compared to renting audio tour equipment like wands or tape players, where there is a potential for theft or hardware loss. Cell phones would solve the visitor choice/sovereignty conundrum. Only those interested in the audio component would be hearing the content presented, individually, in their own ears.

The main objection to cell phone site audios is the potential of discrimination against visitors who can't afford a cell phone. However, there are groups who take donated cell phones and hardwire them to only call 9-1-1 for people who live alone. Phones also could be programmed to only call the park wayside audio message tree. The incentive to steal these phones would be eliminated. Hardwired cell phones could be kept at the visitor center desks in the same way audio tour tape players or audio wands are now dispensed in other NPS units.

ACCESSIBILITY

Every attempt will be made to provide full access to interpretive media and programs to ensure that people with physical and mental disabilities have access to the same information necessary for a safe and meaningful visit to the Glorieta Battlefield. This is in compliance with the National Park Service policy:

"...to provide the highest level of accessibility possible and feasible for persons with visual, hearing, mobility, and mental impairments, consistent with the obligation to conserve park resources and preserve the quality of the visitor experience for everyone."

NPS Special Populations Directive 83-3, Accessibility for Disabled Persons.

All interpretation will follow general standards for accessibility as described in the Harpers Ferry Center Programmatic Accessibility Guidelines for Interpretive Media.



Kozlowski's Ranch House

COST ESTIMATES

The following are Class C cost estimates for the planning, design, and production of exhibit and wayside exhibit media for interpreting the Glorieta Battle at Pecos NHP. Estimates are not provided for road improvements, or for the development of pullouts, parking areas, the loop trail, or for rehabilitation or construction of facilities. Estimates for cellular audio messages also are not included. Minuteman NHP was the first NPS unit to utilize this technology. They should be contacted directly regarding cost estimates, reliability, maintenance, and extent of visitor use.

Exterior exhibits at the Pecos Visitor Center:

Two exhibit panels (large)	\$3,000.00*
Interpretive Exhibit Structure	\$6,500.00*
Installation	\$3,000.00
Total	\$12,500.00

* Does not include planning and design

Interior exhibits at the Pecos Visitor Center

Four exhibit panels	\$5,000.00*
Topo Model w/ reader rail, fiber optic program and exhibit base cabinet	\$40,000.00*
Exhibit cases and mounts	\$4,000.00*
Installation	\$4,000.00
Total	\$53,000.00

* Does not include planning and design

Interior exhibits at the Pigeon's Ranch Visitor Contact Center

Exhibits (300 sq.ft.)	\$93,750.00*
Topographic model, with base cabinet	\$25,000.00*
Installation	\$6,000.00
Total	\$124,750.00

*Does not include planning and design

Since the number of wayside exhibits cannot be determined until completion of a Wayside Exhibit Proposal, the following is extracted from the HFC: Wayside Exhibits web page <http://www.nps.gov/hfc/products/waysides/way-prepare-cost.htm> regarding cost estimate ranges for individual waysides:

When little or no information about the proposed exhibits is known, it is recommended that a cost of \$7,000 per exhibit be used to prepare cost proposals.

Planning: The cost of planning a wayside exhibit ranges from \$500 and \$1500 per exhibit panel.

Design & Pre-production: The cost of designing a wayside exhibit ranges between \$500 and \$1500 per exhibit panel.

Illustrations & Maps: Exhibit prices increase dramatically if original illustrations, diagrams, or complex maps are needed. And, since original illustrations and maps are considered additional products that hold their own value outside of use on wayside exhibits, they are priced separately.

Production: Wayside exhibit panels and bases are fabricated by commercial vendors, supervised by HFC production specialists. The prices shown below are those established by contract negotiation and are for typical panels and standard bases. Custom mount costs are likely to be higher. Installation of bases is typically done by the park, with technical assistance by Harpers Ferry Center. The contract supervision costs, usually 10% of the total, are not included in the prices listed.

		Panel		Base
		Screen Prints ¹	Porcelain Enamel Digital Prints ²	
36 x 24 (low profile)	\$2,200	\$2,300	\$600	\$600
42 x 24 (low profile)	\$2,400	\$2,500	\$600	\$600
36 x 48 (upright)	\$3,000	\$3,200	\$840	\$840
5.5 x 11.5 (trailside)	\$600	\$700	\$180	\$150

Notes to the cost-estimate table:

1. Prices for screen-print panels are for 15 prints, two embedded in fiberglass. Unit price therefore depends on the number of prints that

are eventually used. Replacements are provided (usually at no cost) by HFC.

2. Prices for a digitally imaged wayside are one original single-sided panel; duplicate panels cost about \$40 per square foot.



Glorieta Pass from Whinmill Hill

PARTICIPANTS

Pecos National Historical Park

Dennis Ditmanson, Superintendent
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Rick Nolan, Chief of Natural Resources & Visitor Protection
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Gerry Magyar, Volunteer
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Harpers Ferry Center

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Sharpshooter's Ridge